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Section 1



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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 2-20-04

Application Number: 09/800,413
Filing Date: March 06, 2001
Appellant(s): HACKER ET AL.

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Julie R. Daulton
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12-2-03.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The amendment after final rejection filed on 12-2-03 has been entered.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because the brief fails to include arguments as to why dependent claims are separately patentable over the prior art.

(8) Claims Appealed

A substantially correct copy of appealed claims 19-21 and 24 appears in Appendix I to the appellant's brief.

The minor errors are as follows: on line 18 of claim 19, "single piece" should have been deleted as set forth in the after-final amendment filed on 12-2-03 which has been entered.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

DE 236421	Knecht	10-1962
US 5,595,636	Gullett	12-1997
US 4,484,987	Mules1	2-1996

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19, 20, and 24 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation of the spin-on filter and bowl cartridge filter including a single piece housing as recited in amended claim 19 is considered new matter.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19-21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austrian Patent 236,421 in view of Mules and Gullett '636.

With respect to claim 19, '421 discloses a filter head 1 having a center tube (e.g., defining port 3) defining an end, an outer tube (e.g., carrying seal 16), a first liquid flow

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port 2, a second liquid flow port 3, the outer tube circumscribing the center tube, the outer tube defining an end, an outer tube end port at the end at the end, an outer tube flow passageway extending between and in fluid communication with the first liquid flow port 2, the center tube defining a center tube flow passageway and a center tube end port, the center tube flow passageway extending between and in fluid communication with the second liquid flow port 3, the center tube projecting outwardly from the end of said outer tube, a bowl cartridge filter having a single piece housing 4 defining an interior and a cartridge filter 5 operably oriented within the housing interior, the cartridge filter including a region of filter media and a non-removable liner 9, the filter being in liquid flow communication with the outer tube end port and the center tube end port, a first seal arrangement 6 oriented to form a first seal to inhibit leakage between the outer tube flow passageway and the filter, and a second seal arrangement 15 oriented to form a second seal to inhibit leakage between the center tube flow passageway and the filter.

'421 discloses a bayonet connection between an outer region of the outer tube and the filter but fails to specify the filter as having a threaded region 16 threadably engaged to an outer tube threaded region of the filter head. Mules discloses that a bayonet connection and a threaded connection between the outer surface of an outer tube of a filter head and the inner surface of filter are known alternatives (see lines 38-45 of col. 4). It would have been obvious to have modified the '421 filter so as to have included the threaded connection as suggested by Mules in order to provide a known alternative connection for the filter. '421 and Mules fail to specify the limitation of the threaded connection having a cross sectional thickness no greater than 10 mm. Gullett discloses

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an analogous filter housing having a threaded region 22 having a cross sectional thickness no greater than 10 mm (see lines 12-17 of col. 4) and suggests that such a dimension provides the required strength for the threaded connection of an oil filter housing. It would have been obvious to have modified the combination suggested by '421 and Mules so as to have included a threaded region having a cross sectional thickness as suggested by Gullett in order to provide the required strength for the threaded connection of an oil filter housing.

Concerning claim 20, '421, Mules, and Gullett disclose bowl-cartridge filters with reusable housings and replaceable cartridges.

As to claim 21, Mules discloses the filter threaded region as being on an interior portion of the housing and the outer tube threaded region as being on an exterior portion of the outer tube (see lines 41-43 of col. 4).

Regarding claim 24, '421 discloses a cartridge filter including a cylinder of plated filter media (see line 4 of page 2) defining an open filter interior and the center tube 22 extending into the open interior.

(11) Response to Argument

Response to Arguments in Section 1 of the brief.

The rejection of claims 19, 20, and 24 under 35 U.S.C. 112, first paragraph, in which the concept of one of the spin-on canister filter bowl and a bowl-cartridge filter having a single piece housing was held to be new matter has been withdrawn in view of applicant's amendment to claim 19 deleting the term "single piece".

Response to arguments in part 1 of Section 2 of the brief against the rejection under 35 U.S.C. 103 of claim 19.

Applicant argues that the port structure 3 shown in the drawing Figure of the Austrian Patent does not fairly disclose the different and separate limitations in claim 19 relating to the center tube, second liquid flow port, and the center tube flow passageway. The Austrian Patent discloses a filter head 1 (see the drawing Figure) which includes an upper surface, a center tube (e.g., received by seal 15) extending from a lower surface of the filter head, and a port 3 that extends continuously from the upper surface of the filter tube to a lower end of the center tube. Accordingly, the Austrian Patent clearly discloses a center tube (e.g., received within seal 15 and defining a lower end of port 3), second liquid flow port (e.g., the upper opening of the port 3), and a center tube passageway (e.g., the part of the port 3 surrounded by the tube) all as recited in the claim. Applicant argues further that the Austrian Patent cannot be fairly interpreted to disclose that the center tube flow passageway extends between and in is in fluid communication with the center tube end port and the second flow port, however, it is held that the drawing Figure of the reference clearly discloses a center tube flow passageway surrounded by the center tube as explained above, the center tube passageway extending between and in fluid communication with the center tube end port defined at the lower opening of the tube and the second flow port defined at the upper opening of port 3 as recited in instant claim 19.

Response to arguments in part 2 of Section 2 of the brief against the rejection under 35 U.S.C. 103 of claim 19.

Applicant argues that the limitation of the filter head being capable of receiving, separately, both a spin-on canister filter and a bowl cartridge filter as recited in claim 19 has not been addressed by the examiner. The final office action clearly implies that filter head is capable of receiving a bowl filter cartridge since all the limitations relating to the threaded connection between the filter head and bowl filter cartridge have been addressed. It is held that the filter head suggested by the prior art would be capable of receiving a spin-on canister filter having an upper end including a threaded connection and first and second seals configured in the same manner as the bowl-cartridge filter suggested by the prior art. Finally, applicant should note that the alternative language "one of spin-on canister filter and a bowl-cartridge filter operably connected to said filter head" does not require disclosure of a spin-on canister filter in order for the claim to be rejected in view of the applied prior art.

Response to arguments in part 3 of Section 2 of the brief against the rejection under 35 U.S.C. 103 of claim 19.

Applicant argues that one of ordinary skill would have not modified the filter head disclosed in the Austrian Patent by eliminating the bayonet connection between structures 1 and 4 and substituting a threaded connection disclosed by Mules as recited in claim 19, however, it is held that one skilled in the art would have made such a modification since both references disclose filter heads and bowl cartridge filters for

filtering the lubricating oil of an internal combustion engine and because Mules teaches that bayonet and threaded connections can be alternatively used to connect a bowl cartridge filters to a filter head (see lines 38-45 of col. 4 of Mules).

Applicant argues further that Mules fails to disclose how a substitution of a threaded connection for a bayonet connection as recited in claim 19 would be done, however, it is held that such a substitution is clearly disclosed by Mules since Mules discloses on lines 41-43 of col. 4 that an internal screw threaded rim may be provided at the open end of the container which cooperates with an external thread provided on the main body or filter head. Accordingly, it is held that one skilled in the art could replace the bayonet connection of the Austrian Patent to include a threaded connection in a manner taught by Mules using standard metal fabrication techniques.

Response to arguments in part 4 of Section 2 of the brief against the rejection under 35 U.S.C. 103 of claims 19-21 and 24.

Applicant argues that there is no motivation to combine the details of the threaded connection disclosed by Gullett with the Austrian Patent and Mules since Gullett fails to disclose the combination of a filter and a filter head as recited in claim 19, however, it is held that that such motivation exists since Gullett discloses the combination a filter (e.g., the combination of the bowl 20 and filter 50) and a filter head 30. Applicant should note that the part 30 disclosed by Gullett constitutes a "filter head" since it forms a removable upper portion of a filter housing defining inlet and outlet flow passageways.

Applicant argues that there is no motivation to reconfigure the structure suggested by the Austrian Patent and Mules to have the cross sectional thickness at the threaded connection as recited in instant claim 19, however, it is held that sufficient motivation exists since all of the cited references disclose combinations including filter heads and cartridge bowl filters, because Mules discloses that the claimed threaded connection can be substituted for a bayonet connection, and because Gullett clearly suggests that the recited cross sectional thickness at the threaded connection is desirable in order to provide the required strength of connection between the cartridge bowl filter and filter head.

Applicant's summary of arguments against the rejection of claim 19 in the first full paragraph of page 12 have been covered in subsections 1-3 above.

Applicant's argument that the prior art fails to disclose the concept of a single filter head being used with different filters interchangeably without any special tools or adapter structure fails to apply to the instant case since such a limitation does not appear in any of the pending claims. In addition, it is held that the prior art inherently discloses such a concept since none of the applied references disclose adapters in addition to a filter head or the use of any special tools to remove and replace cartridge bowl filters on their respective filter heads.

Applicant argues that the rejection of claims 20, 21, and 24, all depending from claim 19, should be reversed since the claimed subject matter of independent claim 19 is not disclosed or suggested by the prior art. Accordingly, the rejections of claims 20, 21, and 24 have been maintained since the rejection of claim 19 has been maintained

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and because the limitations of those claims are disclosed in the prior art as explained in the final office action set forth above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Matthew O. Savage

Matthew O Savage

Primary Examiner

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mos

February 20, 2004

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